

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A device comprising:

a decode processor configured to (i) divide a first picture from a video signal into a plurality of picture segments, (ii) divide each one of said picture segments into a plurality of tiles and (iii) generate a list associating each one of said tiles to a corresponding one page of a plurality of pages in a corresponding one bank of a plurality of banks in a first memory such that each one of said picture segments has (a) at least a first one of said tiles associated with a first of said banks and (b) at least a second one of said tiles associated with a second of said banks; ~~and~~

a direct memory access unit configured to store said first picture in said first memory according to said list; ~~and~~

a memory manager configured to (i) generate a map allocating space in said first memory to store said first picture and (ii) transfer an identification value identifying said map to said decode processor, wherein (a) said decode processor is further configured to transfer said identification value to said direct memory access unit and (b) said direct memory access unit is further configured to use said identification value to locate said map.

2. (PREVIOUSLY PRESENTED) The device according to claim 1, further comprising a second memory configured to (i) store said list and (ii) transfer said list to said direct memory access unit.

3. (CURRENTLY AMENDED) The device according to claim 1, ~~further comprising a wherein said~~ memory manager configured to ~~(i) generate a map allocating space in said first memory to store said first picture and (ii) store~~ stores said map in said ~~a~~ second memory.

4. (CURRENTLY AMENDED) The device according to claim 3, wherein ~~(i) said memory manager is further configured to transfer an identification value identifying said map of said first picture to said decode processor, (ii) said decode processor is further~~ configured to transfer said identification value to said direct memory access unit and ~~(iii) said direct memory access unit is further configured to use~~ uses said identification value to locate said map in said second memory.

5. (PREVIOUSLY PRESENTED) The device according to claim 1, wherein each one of said picture segments comprises four of said tiles spatially arranged to share a common corner.

6. (PREVIOUSLY PRESENTED) The device according to claim 1, wherein each of said picture segments is mapped to at least four of said banks in said first memory.

7. (PREVIOUSLY PRESENTED) The device according to claim 1, wherein said picture segments of said first picture are stored in a plurality of physically non-contiguous address ranges in said first memory.

8. (ORIGINAL) The device according to claim 1, wherein each of said picture segments comprises one group of a plurality of luminance samples and a plurality of chrominance samples from said first picture.

9. (PREVIOUSLY PRESENTED) The device according to claim 1, wherein said tiles comprise a plurality of spatially square regions.

10. (PREVIOUSLY PRESENTED) The device according to claim 1, wherein said picture segments comprise a plurality of spatially square regions.

11. (CURRENTLY AMENDED) A method of storing a video signal, comprising the steps of:

(A) dividing a first picture from said video signal into a plurality of picture segments;

5 (B) dividing each one of said picture segments into a plurality of tiles;

(C) generating a list associating each one of said tiles to a corresponding one page of a plurality of pages in a corresponding one bank of a plurality of banks in a memory such  
10 that each one of said picture segments has (a) at least a first one of said tiles associated with a first of said banks and (b) at least a second one of said tiles associated with a second of said banks; and

(D) storing said first picture in said memory according  
15 to said list;

(E) generating a map in a memory manager allocating space in said memory to store said first picture;

(F) transferring an identification value identifying said map from said memory manager to a decode processor;

20 (G) transferring said identification value from said decode processor to a direct memory access unit; and

(H) locating said map with said direct memory access unit using said identification value.

12. (PREVIOUSLY PRESENTED) The method according to claim 11, wherein step (D) comprises the sub-step of:

storing said first picture using a plurality of direct memory access operations.

13. (PREVIOUSLY PRESENTED) The method according to claim 11, further comprising the step of:

marking a plurality of memory segments in said memory that have been allocated to said first picture as used.

14. (CURRENTLY AMENDED) The method according to claim 11 ~~13~~, further comprising the step of:

deallocating said memory segments from said first picture to free space in said memory.

15. (PREVIOUSLY PRESENTED) The method according to claim 14, further comprising the step of:

marking said memory segments deallocated from said first picture as free.

16. (CURRENTLY AMENDED) The method according to claim 14 ~~15~~, further comprising the step of:

mapping a second picture from said video signal to said memory segments including at least one of said memory segments deallocated from said first picture.

17. (ORIGINAL) The method according to claim 16, wherein said first picture has a different size than said second picture.

18. (PREVIOUSLY PRESENTED) The method according to claim 11, further comprising the step of:

generating a value identifying which of a plurality of memory segments in said memory are mapped to said first picture.

19. (PREVIOUSLY PRESENTED) The method according to claim 11, wherein each one of said picture segments is mapped to all of said banks in said memory.

20. (CURRENTLY AMENDED) A device comprising:

means for (i) dividing a first picture from a video signal into a plurality of picture segments, (ii) dividing each one of said picture segments into a plurality of tiles and (iii) generating a list associating each one of said tiles to a corresponding one page of a plurality of pages in a corresponding one bank of a plurality of banks in a memory such that each one of said picture segments has (a) at least a first one of said tiles associated with a first of said banks and (b) at least a second one of said tiles associated with a second of said banks; ~~and~~

means for storing said first picture in said ~~first~~ memory according to said list; and

means for (i) generating a map allocating space in said memory to store said first picture and (ii) transferring an identification value identifying said map to said means for dividing said first picture, wherein (a) said means for dividing said first picture transfers said identification value to said means for storing and (b) said means for storing uses said identification value to locate said map.